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Graves

400415

~~SECURITY INFORMATION~~Classification  
by author  
of the U.S.D.  
changed to  
Joint Task Force SEVENHEADQUARTERS  
TASK GROUP 7.1  
Joint Task Force SEVEN  
P. O. Box 1663  
Los Alamos, New Mexico

10 November 1953

I/1991

J- 21366 (D)

TO: Distribution

FROM: Commander, Task Group

SUBJECT: OUTLINE OF SCIENTIFIC PROGRAMS OPERATION CASTLE  
(Supersedes J-17930 dated 8 May 1953 and J-18603 dated 1 July 1953)Project  
NumberPUBLICLY RELEASABLE  
Title OS-6 M. Paulkatz 6/9/94

Organization

Project  
Officer

TASK UNIT 13 - DOD PROGRAMS (Col. H. K. Gilbert, Capt. N. E. Kingsley)

LOS ALAMOS  
01761867

PROGRAM 1 - BLAST AND SHOCK MEASUREMENTS (LCDR W. L. CARLSON)

## 1.1 Blast Measurements by Photography

- |  |     |              |
|--|-----|--------------|
| a. Free Air Pressure (Rocket Trails)   | NOL | C.J. Aronson |
| b. Precursor Phenomena (Rocket Trails) | NOL | C.J. Aronson |
| c. Base Surge Phenomena                | NOL | C.J. Aronson |
| d. Peak Pressure by Aerial Photography | NOL | C.J. Aronson |

## 1.2 P vs T on the Surface

- |                                  |              |               |
|----------------------------------|--------------|---------------|
| a. Pressures less than 40 psi    | Sandia Corp. | J.M. Harding  |
| b. Pressures greater than 40 psi | BRL          | J.J. Meszaros |

## 1.3 Shock Winds and Afterwinds

Sandia Corp. J.M. Harding

## 1.4 Underwater P vs T

ONR-NRL-NOL-DTMB W.J. Thaler

## 1.5 Acoustic Pressure Signals in Water(SOFAR)

ONR J.W. Smith

## 1.6 Water Wave Studies

ONR-Scripps R.R. Revelle

## 1.7 Close-in Ground Accelerations

Sandia Corp. J.M. Harding

## 1.8 Dynamic Pressure Investigations

BRL E.J. Bryant

## PROGRAM 2 - NUCLEAR EFFECTS (Lt. Col.E. A. Martell)

- |  |      |               |
|--|------|---------------|
| 2.1 Gamma Film Dosage Measurements       | ESL  | R.H. Dempsey  |
| 2.2 Gamma Dose Rate vs Time              | ESL  | P. Brown      |
| 2.3 Neutron Flux & Spectrum Measurements | NRL  | T.D. Hanscome |
| 2.5a Fall-out Distribution Studies       | NRDL | E.R. Tompkins |
| 2.5b Fall-out Distribution Studies       | CRL  | E.F. Wilsey   |

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<u>Project Number</u>	<u>Title</u>	<u>Organization</u>	<u>Project Officer</u>
2.6a	RC Analysis of Ground Contamination	NRDL	E.R. Tompkins
2.6b	RC Analysis of Ground Contamination	CRL	R.C. Tompkins
3.1	PROGRAM 3 - STRUCTURES (Capt. N.E. Kingsley) Loading of Structures	ONR-SRI	L.W. Swift
3.2	Crater Survey and Evaluation	ONR-SRI	R.B. Vaile, Jr.
3.3	Tree Stand Studies <i>Investigation of a Felled tree</i>	USFS	W.L. Fons
3.4	PROGRAM 6 - TESTS OF SERVICE EQUIPMENT AND OPERATION (Lt. Col. D.I. Prickett) <i>Joint of Intern. ASDA procedure for high-yield weapons.</i>	SAC-KSAT	<i>Lt. Col. Rockly French</i>
6.1	Effects of Blast, Gust, and Thermal on AC in Flight (B-36 Aircraft)	WADC	Col. W.A. Anderson
6.2a	Effects of Blast, Gust, and Thermal on AC in Flight (B-47 Aircraft)	WADC	Col. W.A. Anderson
6.2b	Effects of Blast, Gust, and Thermal on AC in Flight (B-47 Aircraft)	WADC	Col. W.A. Anderson
6.4	Proof Testing of AW Countermeasures	BuShips	Capt. G.G. Molumphy
6.5	Decontamination and Protection	CRL	J.C. Maloney
6.6	Effects on Ionosphere	ESL	Capt. A. Girc
7.1	PROGRAM 7 - LONG RANGE DETECTION (Col. P.R. Wignall) Electromagnetic Radiation Calibration	AFOAT-1	J.A. Crocker
7.2	Detection of Airborne Low Frequency Sound from Atomic Explosions	AFOAT-1	G.B. Olmstea
7.4	Calibration Analysis of A-Bomb Debris	AFOAT-1	W. Singlevic
9.1	PROGRAM 9 - SUPPORTING MEASUREMENTS (Lt. Col. J.G. James) Cloud Photography	AFSWP	Lt. Col. J.G. James
TASK UNIT 1 - LASL PROGRAMS (L. Aamodt)			
11.1	PROGRAM 11 - RADIOCHEMISTRY (R. Spence) Analysis for Fission and Fusion Energy Yields (Overseas phase will be handled by 11.2)	J-11, LASL	R. Spence
11.2	Sample Collection	J-11, LASL	H. Plank
	Heavy Element Investigations	J-11, LASL and UCRL	Maj. C. Browne

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<u>Project Number</u>	<u>Title</u>	<u>Organization</u>	<u>Project Officer</u>
2.6a	RC Analysis of Ground Contamination	NRDL	E.R. Tompkins
2.6b	RC Analysis of Ground Contamination	CRL	R.C. Tompkins
	PROGRAM 3 - STRUCTURES (Capt. N.E. Kingsley)		
3.1	Loading of Structures	ONR-SRI	L.W. Swift
3.2	Crater Survey and Evaluation	ONR-SRI	R.B. Vaile, Jr.
3.3	Tree Stand Studies	USFS	W.L. Fons
3.4	neutralization of a painted sample <del>survived</del> <del>survived</del> <del>survived</del>		
	PROGRAM 6 - TESTS OF SERVICE EQUIPMENT AND OPERATION (Lt. Col. <del>survived</del> <del>survived</del> <del>survived</del> )		
6.1	Test of laterals (Lt. Col. S.)		
ADDITION		<i>ATTACHED AS separate entry</i>	
	PROGRAM 4 - BIO-MEDICAL STUDIES (CDR E. P. CRONKITE)		
<u>PROJECT NO.</u>	<u>TITLE</u>	<u>ORGANIZATION</u>	<u>PROJECT OFFICER</u>
4.1	Study of Response of Human Beings Exposed to Significant Beta and Gamma Radiation due to Fall-Out from High Yield Weapons.	AFSWP and AEC (DBM)	CDR E. P. CRONKITE, USN
6.0	Effects on Ionosphere	ESL	Capt. A. Giroux
	PROGRAM 7 - LONG RANGE DETECTION (Col. P.R. Wignall)		
7.1	Electromagnetic Radiation Calibration	AFOAT-1	J.A. Crocker
7.2	Detection of Airborne Low Frequency Sound from Atomic Explosions	AFOAT-1	G.B. Olmstead
7.4	Calibration Analysis of A-Bomb Debris	AFOAT-1	W. Singlevich
	PROGRAM 9 - SUPPORTING MEASUREMENTS (Lt. Col. J.G. James)		
9.1	Cloud Photography	AFSWP	Lt. Col. J.G. James
TASK UNIT 1 - LASL PROGRAMS (L. Aamodt)			
	PROGRAM 11 - RADIOCHEMISTRY (R. Spence)		
11.1	Analysis for Fission and Fusion Energy Yields (Overseas phase will be handled by 11.2)	J-11, LASL	R. Spence
11.2	Sample Collection	J-11, LASL	H. Plank
11.3	Heavy Element Investigations	J-11, LASL and UCRL	Maj. C. Browne

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<u>Project Number</u>	<u>Title</u>	<u>Organization</u>	<u>Project Officer</u>
PROGRAM 12 - REACTION HISTORY (B. Watt)			
12.1	Reaction History	UCRL	S. Colgate
12.3	<del>Reaction History</del>	J-16, LASL	B. Watt
PROGRAM 13 - PHOTOGRAPHY (G. Felt)			
13.1	Ball of Fire Photography	EG&G	H. Grier
13.2	Cloud Photography	EG&G	H. Grier
13.3	Bhangmeters, etc.	EG&G	H. Grier
13.4	High-Speed Photography	J-15, LASL	G. Felt
13.5	Time Interval Measurement with Bowen Cameras	J-15, LASL	G. Felt
PROGRAM 14 - EXTERNAL NEUTRON MEASUREMENTS (L. Brown)			
14.1	Threshold Detectors	J-12, LASL	W. Biggers
PROGRAM 15 - ALPHA MEASUREMENTS (N. H. Smith)			
15.1	Teller and Scintillation Alpha	J-13, LASL	N. H. Smith
15.2	Electromagnetic Alpha	LASL	R. D. England
PROGRAM 16 - GAMMAS AND RESIDUAL CONTAMINATION (B. Watt)			
16.1	Gamma Intensity at Late Times	J-16, LASL	G. Ragan
PROGRAM 17 - MICROBAROGRAPHY (J. M. Harding)			
17.1	Microbarography	Sandia Corp.	J. M. Harding
PROGRAM 18 - THERMAL RADIATION (H. Hoerlin)			
18.1	Time Interval Between Reactions	NRL	H. Stewart
18.2	Power vs Time	NRL	H. Stewart
18.3	Spectroscopy	NRL	H. Stewart
18.4	Air Transmission	NRL	H. Stewart
18.5	Total Thermal Radiation	NRL	H. Stewart
PROGRAM 19 - MARINE SURVEY (L. Donaldson)			
19.1	Marine Survey 5004756	U of Wash. Applied Fisheries Laboratory	L. Donaldson

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<u>Project Number</u>	<u>Title</u>	<u>Organization</u>	<u>Project Officer</u>
TASK UNIT 12 - UCRL - LIVERMORE PROGRAMS ( A. J. Hudgins )			
PROGRAM 21 - RADIOCHEMISTRY (Kenneth Street, UCRL)			
21.1	Analysis for Fission & Fusion Energy Yields	UCRL	K. Street
21.2	Sample Collection	UCRL	P. Stevenson
21.3	Heavy Element Investigations	UCRL	W. Crane
21.4	Gas Analysis	UCRL	F. Momoyer
PROGRAM 22 - HISTORY OF THE REACTION (S. Colgate, UCRL)			
22.1	Ganex	UCRL	S. Colgate
22.2	Tenex	UCRL	S. Colgate
22.3	Alpha	UCRL	S. Colgate
PROGRAM 23 - SCIENTIFIC PHOTOGRAPHY ( W. P. Ball )			
23.1	Hot Spot Time Interval Measurements	UCRL	W. P. Ball
23.2	Ball of Fire Photography	EG&G	H. Grier
PROGRAM 24 - EXTERNAL NEUTRON MEASUREMENTS (S. White, UCRL)			
24.1	Phonex	UCRL	S. White

Addresses and channels for classified communications may be found in document J-20656, dated 12 October 1953. The channel for classified communications with DOD programs and projects is through Commander, Task Unit 13.

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Key to abbreviations used above:

AFOAT-1	Air Force Office of Atomic Energy
AFSWP	Armed Forces Special Weapons Project
BRL	Ballistics Research Laboratory
BuShips	Bureau of Ships - U. S. Navy
CRL	Chemical and Radiological Laboratory
DTMB	David Taylor Model Basin
EG&G	Edgerton, Germeshausen & Grier, Inc.
ESL	Evans Signal Laboratory
LASL	Los Alamos Scientific Laboratory
NRDL	Naval Radiological Defense Laboratory
NRL	Naval Research Laboratory
NOL	Naval Ordnance Laboratory
ONR	Office of Naval Research
SCRIPPS	Scripps Institution of Oceanography
SRI	Stanford Research Institute
UCRL	University of California Radiation Laboratory
USFS	United States Forest Service
WADC	Wright Air Development Center

FOR THE COMMANDER:

*Duncan Curry Jr.*

Duncan Curry, Jr.  
Deputy for Administration

AWK:jmc

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